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# FINALITY IN SURGERY:

## AN ADDRESS

DELIVERED IN THE

SURGICAL SECTION OF THE ACADEMY OF MEDICINE  
IN IRELAND,

AT THE OPENING MEETING, NOVEMBER 12, 1886.

BY

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## FINALITY IN SURGERY.

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ON the present occasion I have, in the first instance, to acknowledge the signal mark of confidence that has been shown me by this College in placing me in the position I now occupy—one that carries with it, as you know, the duty as well as privilege of presiding during the coming session over the deliberations and discussions in this Section of the Academy. To be appointed to this office I deem one of the highest honours that can be conferred on any member of our calling, and that I am sensible of having been considered worthy of it, is the truth.

I will ever remember with satisfaction that in the formation of this Academy, which was a welding together of all the societies in this city connected with our Profession, and a public declaration and recognition on our part of the unity of medical science, I took a not wholly inactive part, believing that from a vivifying contact of its branches would be derived a new and powerful impulse to its progress, and to the pleasure of finding that these anticipations have been more than realised, is added for me the pardonable pride of having first been entrusted with the responsible duties of Secretary to this Section, and now with those of its President.

It is not my intention to make a retrospect of the surgical work done by this Section since its formation, though such might be interesting and possibly of utility. That which was accomplished

last session was, I think, a fair sample of what was done in the three previous ones; and when we consider the range and importance of the communications made—On Dry Dressings in Antiseptic Surgery, by Mr. Kendal Franks; Perforation of the Membrana Tympani, by Dr. M'Keown; the Radical Cure of Hydrocele, by Dr. M'Ardle; Pharyngocele, by Mr. Wheeler; Ectopia Vesicæ, by Professor Bennett; Bone Drainage, by Professor T. Stoker; the Surgery of the Brain, by Dr. Coppinger; the Treatment of Scrofulous Cervical Glands, by Mr. Kendal Franks; Ununited Fractures, by Dr. Fitzgibbon; and the Treatment of Stricture, by Electrolysis, by Dr. Hayes—we can recall a group of papers that were at once comprehensive and practical, furnishing proof not alone of earnestness, ability, and zeal, but also no lack of power to sustain the reputation that has been won for the Dublin School of Surgery by our predecessors.

One of the great—in truth, the chief—uses of societies such as this is to furnish opportunities for that mental friction, that touch of mind to mind, and contact with the spirit of work, which are such important factors in giving a stimulus to effort, fostering that union among workers which is not only a force in promoting scientific progress, but also one which leads to that kindly feeling and fellowship which should exist among all who honestly make effort to advance our science. These advantages, as well as others, must always follow fair, temperate, and earnest scientific discussion, and there are few now, if any, who would endorse an opinion I remember hearing expressed in the old Pathological Society, which was—that one of its chief merits was the absence of all debate or discussion on the specimens exhibited, or on the communications made thereon, a sentiment which was at the time



received with loud applause. On another occasion I heard a somewhat similar utterance from one deservedly eminent in our profession, who, deprecating heated discussion on scientific matters and warning his hearers against it, reminded them that it is only when water is clear and tranquil that we are enabled to see the treasures that lie beneath it. But we have to do more than "see," and it must not be forgotten that it is only after the storm that the fairest shells are cast upon the beach, and the opportunity given us not alone to see them in all clearness, but to study, to learn from, appreciate, and treasure them. To Pericles are given the words: "Debate, we hold, does not mar action; the mischief is rather setting to work without first being enlightened" (Thucyd. II., 40). But for discussion or debate to be fruitful it is essential that there should be a rigid avoidance of all personalities, and a maintenance of that courtesy which characterises and distinguishes a scientific and intellectual aristocracy.

It has always been a source of regret to me since the formation of this Academy that so many members of our profession, both here as well as in the provinces—men of large and varied experience and unquestioned ability—have played so secondary a part in its practical working. Why this should be has always been inexplicable to me, for assuredly the necessity for conference, criticism, and mutual help is, especially in this Section, owing to the area of surgery having of late become so widened, far greater now than it has ever been. Its life can best be maintained by the persistent recording of accurately observed facts, seen under many phases and circumstances, like the ever-varying pictures in a kaleidoscope, and the more earnest labourers that come into the field and volunteer for so good a work, the sooner may we hope

for the realisation of what should always be our common aim and aspiration—the dispersion of error and diffusion of truth.

It has been well said by our brilliant countryman, Bishop Magee, that no scientific student or teacher ever feels that he has a vested interest in the benefits resulting from any discovery or knowledge he may have acquired. He feels that the result of his toilsome search is not his property alone, but belongs to all men, is revealed to him only that through him all men may become possessors of it, and that to conceal or utilise it solely for his own benefit is a miserly selfishness that carries with it its own Nemesis.

At present there is all the greater necessity for co-operation in scientific research from the existence of many difficulties and chilling influences that in our profession beset us and that we have to contend against, among which may be mentioned the disturbed political condition that now unhappily exists in these countries; for assuredly the scientific advancement of a nation is always greatest when, instead of dissatisfaction and agitation, it has contentment and rest. This chilling influence is accentuated from the existence of a system of rule that, like all popular Governments that exist or ever have existed, is not only careless and indifferent, but often distinctly antagonistic to scientists and their work. A different condition of things is observed among several of our Continental neighbours, notably Germany and Austria, and the result is seen in the fact that of late years we look to a very large extent for light and leading to the great scientific centres in these countries, the Governments of which do so much to aid and foster original scientific research. Here a scientist, unless he happens to be among the favoured few pos-

sessed of private fortune, must dilute his work with what will yield more immediately a practical and tangible result. This must be regarded as a misfortune—one which is felt as such not only in a limited and local sense, but in a widely national point of view, for it has resulted in the too-frequent transplantation of scientific laurels to countries and climes not our own. Again, there is the present epidemic of that combined hysteria, sentimentalism, and folly, which has done so much to mar the intelligence and sap the judgment of so many men, as well as women, and which has resulted in the State placing cruel and senseless fetters on those whose aim and life-work have no objects but the advancement of our science and the welfare of mankind. It has been well said—"There are many years, but one sentiment between the persecution of Galileo and the onslaught on vivisection." I need not dwell further on this, as the able and eloquent Address delivered in this hall by our President, Dr. M'Donnell, on what Experimental Physiology has done for Surgery, is doubtless still fresh in the recollection of most of my hearers. Lastly, there is the existence of that class which is deserving of our heartiest contempt, the "critic-asters," as they were termed by Charles Reade—a class both in, I regret to say, as well as out of our profession, who apparently never tire of praising dead men at the expense of living ones, and who, because there may not be persons in it who stand out from their fellows in as bold relief as formerly was the case, hold that our profession must necessarily be in a state of decadence and decay. There can be no doubt as to the baneful influence of these persons on many, for nothing is so destructive to honest effort as depreciation or discouragement, or, on the other hand, so healthy a stimulus to effort as a



sympathy which is at once hearty and encouraging. There may not be apparent in our profession the commanding personalities, "the Titans among the minnows," like Cooper, Syme, Crampton, W. H. Porter, and Colles—men who towered aloft above all, like forest trees among shrubs; but this is due not to deficiency of ability, industry, knowledge, or power of accurate and original observation in our ranks, as to there being a far higher standard of professional knowledge, which is aimed at by all and reached by many. "A high education is a leveller," are the words of Sir B. Brodie, but has this upward levelling had a beneficial or a pernicious effect on the progress of surgery? The answer can be best found by pointing to the fact that in the regretted days of the much-lauded, and deservedly-lauded heroes I have mentioned, professional knowledge was, in comparison with what it is now, inaccurate and largely empirical, and its progress uncertain, fitful, and irregular. Now, on the other hand, it is advancing steadily, continuously, and with a rapidity which is as amazing as it is unexampled.

It is held by some that in certain of the principal supports on which surgery rests the condition of finality has been reached. I recently listened with deep interest to a surgical address by Mr. Erichsen, whose utterances must ever be regarded with the respect due to one who has aided so signally in raising the standard of British Surgery to the high level it now occupies. In dealing with the lines of surgical advance made in our own time he specified operative surgery, surgical precision, and the development of those methods of scientific research which are carried on in the laboratories of the chemist and experimental physiologist. It was to me a matter of some surprise to hear,



on the occasion I have referred to, the opinion expressed that the two former of these methods, which may be described under the title of the Art of Surgery, have, it was held, like other arts (such as painting, sculpture, and architecture), reached a condition of finality, and that no further progress need be looked for in any of these directions.

In discussing this somewhat dismal view of the present, as well as the future, of these Arts, we should consider the question in a twofold point of view—first, if any analogy exists between them and that which lies more particularly in our own province; and secondly, if there can be any finality in the other arts Mr. Erichsen mentioned. The aims and objects of those he drew attention to appear to me to be, without doubt, as widely different from surgical art as things can possibly be—the first two being essentially imitative, and the third constructive; and though it is hard to conceive a higher degree of perfection being ever reached in painting than the Sistine Madonna of Raphael, or in landscape than “Crossing the Brook” by Turner, or in sculpture than the Venus of Milo, the “Dying Gladiator,” or Thorwaldsen’s “Hebe,” or in architecture than the Parthenon, or the Saracenic palace of the Alhambra, or the Gothic Cathedral at Seville, who can say with reason that finality has been reached in any of the arts of which the works I have mentioned are such splendid monuments? It is true that in these glorious creations the artists have succeeded in deeply touching a responsive chord in the minds of all who contemplate them, and that within the limits of their particular objects they apparently leave nothing to be desired or looked for; and this result has been obtained in consequence of the great masters who produced

them being faithful and earnest students of nature. But are their works indicative of finality? Nature is like an illimitable ocean which changes with every breath of wind and every passing cloud; and from the true artist who makes it—in its ever-varying aspects—his study and his guide, who is animated by the spirit that actuated the great workers of antiquity, may we not reasonably hope that in time, in other of her countless moods and aspects as yet unrepresented and untouched, we may look for works equal, if not better even than those bequeathed to us, and which, so long as they exist, must be regarded by those who contemplate and study them with heartfelt gratitude?

Mr. Erichsen illustrates his theory as to the final limit being now reached in surgery by examples drawn from the history of the imitative and the plastic arts, asserting that no art can be carried beyond a certain degree of excellence, which limit once reached no further development need be looked for. But the theory of evolution and development in the history of man, and of the processes of the mind of man, must more or less apply to those arts in which that mind finds utterance, and will be evident in the symbols of successive ages in their infinite variety. No possible advance, he seems to think, can be made, or has been made in sculpture since the execution of the frieze of the Parthenon, the Venus de Medici, or the Apollo Belvidere; yet when we look clear into the history of this one art we find new varieties of beauty evolving with human perception of spiritual and moral beauty. Even from the Parthenon and Pheidias to that of the younger Attic school—in Scopas and Praxiteles—there is a manifest development, a great step from the period of purely religious art to more human art, which two

periods were united by the sepulchral monuments (such as those found in the street of tombs at Athens), of which Dr. Waldstein says:—"There can be no doubt that these works of sculpture bridged over the step from the art of Pheidias to the art of Praxiteles, that they were a stepping-stone from the religious sculpture to that which partook of a more human character."

If we look closely into the history of the other arts, I believe we will find clear evidence of analogous processes of progressive development. The doctrine of finality, for instance, might equally well have been promulgated in the time of Homer, and the view held then that poetry had reached its goal; but the production of the great Epic of Greece—well termed the "sun of all ancient literature"—did not prevent or interfere with the subsequent appearance of the imperishable works of Shakespeare, Dante, or Goethe; and true as this is of poetry, is it not equally so of all other arts?

But assuming, for the sake of argument, the existence of finality in these arts, and more particularly those indicated by Mr. Erichsen, is there any analogy whatever between them and surgery? I have already indicated some leading differences, but there are others; and chief among them is the fact that the aim and object of surgery is physical repair and restoration of disturbed or lost function to living tissue—tissue the complex nature of which cannot be regarded without awe. Therefore, even if the questionable doctrine of finality having been reached in the arts of painting, sculpture, architecture, or in any other of the arts was well founded, is there ground for supposing from any *à priori* reasoning that this view would hold good of surgery?

If proof were required of the want of finality in operative



surgery, as well as surgical precision, I would recall the fact of the unsettled condition of opinion which exists in relation to the treatment of many forms of surgical injury and disease, a condition of unrest which is observable in very many instances that doubtless occur to you ; for example, in the treatment of various forms of bone lesion, such as fractures of the lower end of the radius, shaft of the femur and patella ; also in the operative treatment of tuberculous disease of bone and malignant new growths. Why does this surgical unrest continue ? Is it not in consequence of our observing, that operative efforts are at times attended with disappointing and disheartening results, even when made apparently in the most suitable cases and with all the available care and skill of men in whom natural surgical proclivities and great manipulative dexterity are combined with the confidence derived from long, varied, and well-utilised experience. I might indicate many examples of this, but the instances in which I have witnessed such were chiefly in cases of tuberculous disease of bone and in operations for certain malignant new growths, notably lingual cancer—a disease which, in truth, seems (in the great majority of cases) an enemy that may be vanquished for a time, but never conquered. Having regard to these vexed points, the question at once comes to the front—If we had anything like finality in either operative surgical treatment or precision in its application, would the condition of surgical unrest I have spoken of exist ?

In addition to the essential differences between surgery and the other arts, indicated by Mr. Erichsen, it should be remembered that its functions and objects are not only widely different, but far higher and far nobler than those of any other art. Sir



William Bowman, in his splendid address on Surgery, at Chester, quoted the pious saying of old, that the art of surgery is the "Hands of God." The human hands that God permits to be "His instruments of succour to that earthly life and organisation which His power, wisdom, and love, having first brought into being, still alone both sustain and cause to perish when their part is played; to that material organisation which dies every hour it lives, which indeed dies by living and lives by dying, and which wonderfully transmits even its own prerogatives and dark secrets to a succeeding life, destined apparently to remain a marvel and a mystery impenetrable to all generations." What has been the history of the three lines of surgical advance as indicated by Mr. Erichsen? Have we observed in their development that advancement or activity in the growth of any one of them has ever been attended with a corresponding stagnation or lagging behind of the others? There have been times in which the powers and resources of medical science have remained temporarily dormant, and empiricism has in consequence raised its head and reigned supreme, diffusing its blighting influence far and wide—a time when the battle of the orthodoxies and heterodoxies in medicine was as fierce, as irrational, as full of bigotry and dishonesty as it ever was in the analogous mischievous controversies of religion. This pernicious war, with all its senseless din, raged in the schools, until crushed and finally silenced by the unerring artillery of physiological experiment, as elaborated by the ceaseless toil and untiring genius of John Hunter.

Everyone even superficially acquainted with the history of our art is aware that the advancement, development, or strengthening of any one of its three great motive forces, already indicated, has

been attended simultaneously with a corresponding advance in the others; and if, as is only too true, biological science has so materially strengthened operative surgery, has this result never been reciprocated, and has not precision in its fullest sense been found to be indispensable to advancement in both? It is, I think, contrary to all probability and experience that in future progress is only to be looked for in one of these three directions. Is it unreasonable to hope that with further developments in antiseptic practice—that boon to surgery for which mankind in all ages to come must ever be grateful to Lister—and which, in our time, has played by far the greatest part in widening the sphere of operative surgery, that regions hitherto barely touched by the operator may eventually become familiar ground for the exercise of his art? From what has already been done by experiment on the lower animals, and in thoracic disease in man—for example, in empyema, pulmonary abscess, pericarditis with effusion, and in vertebral and costal caries—it is no wild flight of fancy to anticipate a time when a diseased lung may be found amenable to operative treatment. Although brain surgery is still, so to say, in its infancy, we may, having regard to the results already obtained by Prof. Victor Horsley, Mr. Alexander, Dr. M'Ewen, Mr. Godlee, and Dr. Roberts of Philadelphia, and when a wider and more accurate knowledge of the localisation of brain injury and disease is obtained, not unreasonably anticipate an era when operations in many such cases may be regarded as well within the region of legitimate operative surgery; and these remarks apply with equal justice to renal, hepatic, and splenic disease.

In order to insure success in these directions we should steadily

and fearlessly pursue our course, relying, not alone, on biological research, but I should say also on improvement in surgical precision, and advancement of surgery in its operative aspects, and reject the disheartening suggestion that these latter have unhappily reached their *ultima thule*—finality. Into the regions where medicine so often has failed to recognise and arrest the progress of disease, surgery advances fearlessly to render aid—aid which happily is often reciprocated—its followers full of hope, enthusiasm tempered by judgment, and confidence in the coming triumphs of our art.

It should be, and is, a genuine source of pleasure to us all—physician and surgeon alike—that we live in a time when we can view with satisfaction and content the destruction and grim ruins of those anachronistic barriers that in days gone by were erected by foolish men between medicine and surgery—barriers which were in so many ways fruitful of mischief, creating feelings of mutual jealousy and thinly-veiled dislike, and keeping us divided, powerless, and weak. They stimulated a conflict of selfish interests, obstructed the advancement of our common calling, prevented its elevation in public esteem, and in no small degree deepened the cold shade of official neglect. Under the influence of a happy reciprocity and overlapping of our work, aid mutually offered and mutually accepted, by slow but sure steps—steps gathering strength from the irresistible wave of human progress behind them, and guided by those whose undimmed lamps burn with no borrowed light—a sure advance is being made to that goal desired by all—Unity in the Science of Medicine.

The fact that there have been, even in our own time, so many



violent vibrations of the pendulum of opinion and practice in medicine and surgery has been often urged against our profession as a reproach. For example, it has been seen to swing from the almost indiscriminate use of blood-letting, to the deprivation from the system of a single drop of blood being viewed with apprehension; from the wholesale use of mercury in the treatment of syphilis to a period when, with more energy than discretion, it was stoutly held to be not only unnecessary but injurious instead of beneficial, and finally stigmatised as an "accursed drug." Now again the pendulum, actuated by the motive force of common sense, has gone to a great extent back to its former position, and we acknowledge that the error made in the first instance, related rather to the mode and time of the administration, and in the quantity that was given. Again, alcohol, in the memory of most of us, was given in febrile and other diseases with a liberality which in the present day would seem distinctly harmful; and among many other revolutions in practice may be indicated the various phases of opinion as regards wound-dressing, and also the estimate of the therapeutic value of the operation of trephining. A century ago it was freely, doubtless far too freely, employed, not only as a means of relieving brain-pressure but also as a prophylactic to meningeal or cerebral inflammation. A reaction of opinion then set in, and for operative interference in these cases there was great indisposition. Now the operation has again asserted itself and is warmly advocated, and I believe rightly, in a far wider range of cases of injury and disease than it was at first. This result is doubtless the outcome of improvements in antiseptic practice, and the improved knowledge we have obtained of the localisation of brain disease, though it must be



admitted that in this field of medicine we are only on the threshold.

But is there any justification for holding up, as has been done, our profession to scorn in consequence of these vibrations of the pendulum, or rise and fall in the tide of professional opinion? Is it not inevitable that such should occur in the application of a science which, without any reproach, can never be ranged among the "exact" sciences—to an art exercised on all sorts and conditions of men and women, varying in age, occupation, nationality, habits, social status, in wealth, in poverty, in health, and in disease? Again, is the doctrine of change of type in disease one wholly to be rejected? It finds, doubtless, but a limited acceptance among modern pathologists, but, notwithstanding, it is one firmly believed in by many of our more thoughtful physicians, distinguished alike on account of their great experience and exceptional powers of accurate observation. Among these I may mention my colleagues, our late President, Dr. Banks, and also Dr. Gordon, both of whom unhesitatingly accept the doctrine of Change of Type in disease. Graves, too, in his "Clinical Medicine," speaking of the variations in scarlatina and other diseases, as observed by himself and others, remarks that they "establish the real existence of a change in the constitution of diseases." Some forms of so-called surgical disease, formerly familiar to me in my student days, have disappeared, or are observed but rarely and in a mitigated form. I allude more particularly to the extensive and violently acute forms of syphilitic phagedæna, such as were described so graphically and vividly by that close and accurate observer, Mr. Wallace, phlegmonoid erysipelas, and acute gangrene—cases of which, during my student

days, were too frequently the subjects of observation and treatment in the surgical wards of our hospitals; also instances of those often fatal forms of anthrax and cancrum oris, the latter relentlessly sparing no structure, and usually uninfluenced by treatment, however bold, rapidly pursuing its fatal career till checked by death alone. Of such cases little conception could now be formed by the surgical student were it not for the descriptions and illustrations which fortunately survive, and of which latter there are such signal examples in the Museum of the Richmond Hospital by Conolly, who, as a faithful and trustworthy pathological artist, has never had a rival.

It is, therefore, under all these circumstances, not surprising that there has been so much variation of opinion as well as of treatment, and they show how undeserved are the reproaches to which the profession has been so often subjected, unhappily furnishing excuses for the public being so often influenced by the reckless assertions of an unscrupulous empiricism. Among those whom we find blaming the profession for their frequent "change of front," we find even Professor Humphry, the eminent Professor of Surgery in the University of Cambridge. He has observed—"If the profession is thus liable to be beaten from pole to pole by the changing blasts of fancy and fashion, it is no wonder that the public are wavering in their confidence, and are capable of being attracted by the bold promises of empiricism under whatever form its head is raised."<sup>a</sup> But, still, though we must regretfully acknowledge that there is a strong element of truth in the existence of many such unhappy consequences of much necessary instability in professional opinion, we can always get comfort as well as confidence in the ultimate triumph

<sup>a</sup> The Hunterian Oration, by George Murray Humphry, M.D., F.R.S., 1879.

of medicine, by bearing in mind one of the many wise as well as eloquent sayings of the great Nestor of our profession, whom all men revere and delight to honour—Sir James Paget—who has said—“We may seem to move in circles, but they are the circles of a constantly ascending spiral; we may seem to sway from side to side, but it is only as on a steep ascent which must be climbed in zig-zag.”<sup>a</sup>

In the preceding remarks I have endeavoured to point out that progressiveness in all the arts, including our own, has ever been synchronous with the advance and development of human knowledge in all other directions, and that this development manifests itself, and will continue to manifest itself, in an infinite variety of ways. Having regard to the fact that the human family may be said to be still young on the earth, the future progress of all arts and sciences is as certain as that “we live, and move, and have our being.” We may then feel assured that surgical art will, in all its branches and lines of advance, continue to progress, preventing us ever saying with Alexander, “Our fathers have left us nothing to do.” In bequeathing to us so noble an inheritance of knowledge as they have done, the result of their untiring toil and genius, they have left us much to do. It is an inheritance carrying with it not alone a deep responsibility, but one which should make us determine not to let the wheels of progress which they set in motion end in a hopeless deadlock of finality; and also, to stimulate an aspiration—one which should be common to us all—to accomplish “something ere the end;” something not unworthy the heirs of those who had—

“ . . . . That strength which in old days  
Moved Earth and Heaven.”

<sup>a</sup> Inaugural Address at International Medical Congress, 1880, by Sir J. Paget, Bart.

